



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	20/96	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	-------	----------------------	---------------------

DANIEL J. HULSEBERG  
MAYER BROWN & PLATT  
P.O. BOX 2828  
CHICAGO IL 60690-2828

PM21/0701

EXAMINER  
BATSON, V

ART UNIT	3616	PAPER NUMBER
----------	------	--------------

07/01/98  
DATE MAILED: 12

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Notice of Allowability</b>	Application No. <b>08/700,216</b>	Applicant(s) <b>STUFFLEBEAM ET AL.</b>
	Examiner <b>VICTOR BATSON</b>	Group Art Unit <b>3616</b>

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

- This communication is responsive to amendment filed May 6, 1998.
- The allowed claim(s) is/are 1-20.
- The drawings filed on \_\_\_\_\_ are acceptable.
- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been
- received.
- received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \*Certified copies not received: \_\_\_\_\_.
- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- Applicant MUST submit NEW FORMAL DRAWINGS
- because the originally filed drawings were declared by applicant to be informal.
- including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 3.
- including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.
- including changes required by the attached Examiner's Amendment/Comment.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.
- Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

**Attachment(s)**

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). 9
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152
- Interview Summary, PTO-413
- Examiner's Amendment/Comment
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- Examiner's Statement of Reasons for Allowance

**MICHAEL J. CARONE**  
**SUPERVISORY PATENT EXAMINER**

EXAMINER'S REASONS FOR ALLOWANCE

1. The following is an Examiner's Statement of Reasons for Allowance: The prior art of record does not anticipate or render obvious the combination of a vacuum seed metering apparatus operably arranged in combination with a seed storage hopper, said seed metering apparatus comprising a disc, a housing having an interior divided by said disc into two adjacent enclosures, one enclosure at least partially defining a seed chamber, and the other enclosure extending at least partially around the path of movement of the apertures to define a vacuum chamber, with a vacuum exhaust port in communication with the vacuum chamber, with the trailing end of the vacuum chamber being arranged adjacent to a seed drop area from whence seeds are released from the disc and wherein the housing further includes **an axially extending circumferential wall having a circumferential opening therein, the circumferential opening being sized to allow air to flow into the seed chamber along at least a portion of the path of movement of the apertures as claimed by applicant** in independent claim 1. The prior art of record does not anticipate or render obvious the combination of a seed metering apparatus operably arranged in combination with a seed storage hopper, said seed metering apparatus comprising a disc, a housing having an

interior divided by the disc into two adjacent enclosures, one enclosure defining a seed reservoir and the other enclosure located along a portion of the path of movement of the apertures to define a vacuum chamber, **wherein the trailing end of the vacuum chamber disposed proximate to a seed discharge area from whence seeds are released from the disc and wherein the housing is provided with an opening arranged proximate to the seed discharge area of the metering apparatus to promote the release of seeds from the disc in the seed discharge area of the metering apparatus as claimed by applicant in independent claim 6.** The prior art of record does not anticipate or render obvious the combination of a seed metering apparatus comprising a housing assembly including a first housing portion and a second housing portion having an open sided cavity framed by a circumferential rim, with the second housing portion defining a vacuum chamber having a leading end and a trailing end and a vacuum exhaust port in communication with the vacuum chamber between the leading and trailing ends thereof and connectable to said vacuum source, at least one of said first and second housing portions having **an opening arranged proximate to the seed discharge area of the housing assembly**, with a disc metering member being rotatably mounted such that each opening in the disc is sequentially brought into communication with the seed reservoir and advances

along a predetermined path of movement toward the drop chute whereat seeds are separated from the disc and pass into the drop chute for discharge from the seed metering apparatus, **the opening arranged proximate to the seed discharge area promoting the release of seeds from the disc in the seed discharge area as claimed by applicant in independent claim 12.** Applicant's invention is deemed to be novel and unobvious over the prior art of record and thus allowable for patent.

Concerning the double patenting rejection, applicants arguments (paper # 11) are deemed persuasive, and the previous double patenting rejection has accordingly been withdrawn.

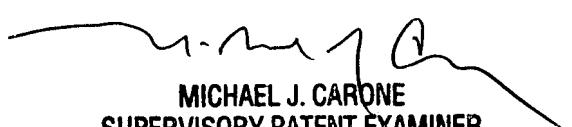
Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Victor Batson whose telephone number is (703) 305-6356.

Any inquiry of general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-2168.

VB 6/23/93  
Victor Batson

June 23, 1998

  
MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

PM21/0701

DANIEL J. HULSEBERG  
MAYER BROWN & PLATT  
P.O. BOX 2828  
CHICAGO IL 60690-2828

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/700,216	08/20/96	020	BATSON, V	3616 07/01/98
First Named Applicant	STUFFLEBEAM,		JOHN F.	

TITLE OF INVENTION VACUUM SEED METERING APPARATUS HAVING HOUSING OPENINGS  
(AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
3		111-185.000	608 UTILITY	NO	\$1320.00	10/01/98

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.**  
**PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

- I. Review the SMALL ENTITY status shown above.  
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
  - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
  - B. If the status is the same, pay the FEE DUE shown above.
- If the SMALL ENTITY is shown as NO:
  - A. Pay FEE DUE shown above, or
  - B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number.  
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

PATENT AND TRADEMARK OFFICE COPY